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ABSTRACT

This document is designed to help state directors/coordinators become more knowledgeable about needs assessment in career education, particularly in reference to States' application for Federal assistance. The following topics are discussed in separate sections: What needs assessment is; who should be included in a needs assessment of career education (students, parents, educators, employers and employees, government agencies, and association personnel); what variables should be included in a needs assessment effort; how a needs assessment effort might be conducted (This section discusses separately the three phases of a needs assessment--planning, implementation, and utilization); examples of needs assessment efforts presently available; areas for future development; and a bibliography of needs assessment materials. (TA)

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NEEDS ASSESSMENT AND CAREER EDUCATION: AN APPROACH FOR STATES

Prepared for

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FOREWORD

We are pleased to present this paper to the Council of Chief State School Officers (CCSSO). This paper has been prepared to assist state directors/coordinators of career education in becoming more knowledgeable about needs assessments. The need for this publication was identified as a result of both the Federal guidelines for state plans related to career education and a survey of the staff development needs of the state directors/coordinators conducted by CCSSO.

The Center is indebted to both Dr. David Jesser, CCSSO, and Ms. Grace Watson of the Office of Career Education in the U. S. Office of Education who were especially helpful in reviewing and providing support, materials and advice for this paper. Appreciation is extended to Dr. N. L. McCaslin, Project Director, and Ms. Janice Lave, Program Assistant, who prepared this paper and to Drs. James Altschuld and Kay Adams, Specialists at The Center for Vocational Education, who reviewed the initial draft. Appreciation is also extended to the following state directors/coordinators of career education who reviewed the working copy of the paper: Marvin Harmon, Oregon; Walter Faulkner, Vermont; Robert S. Meyer, Wisconsin; Jean Page, New Mexico; William Weisgerber, Michigan; and Jack Ford, Ohio.

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Robert E. Taylor
Director

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INTRODUCTION

Career education represents one of the major areas of emphasis in education. Relatively few educational developments have met with such wide range acceptance by local and state agencies as has career education. Since its first introduction by Sidney P. Marland, U. S. Commissioner of Education, in 1971 until early in 1976 14 states had legislated some form of career education. Additionally, nearly one-third of the 17,000 local school districts have reported some involvement with career education efforts.

Career education has been defined in a number of ways since it was originally introduced. Educators at the national, state and local levels have formulated definitions. The Council of Chief State School Officers, in a position statement, has defined career education as follows:

> Career Education is essentially an instructional strategy, aimed at improving educational outcomes by relating teaching and learning activities to the concept of career development. Career Education extends the academic world to the world of work. In scope, Career Education encompasses educational experiences beginning with early childhood and continuing throughout the individual's productive life. A complete program of Career Education includes an awareness of self and the world of work, broad orientation to occupations (professional and non-professional), in-depth exploration of selected (occupational) clusters, career preparation, an understanding of the economic system of which jobs are a part, and placement for all students. (5)

The U. S. Office of Education (USOE) has also defined career education. In An Introduction to Career Education, USOE (13) defined career education as "the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living." The National Institute of Education (NIE) has also recognized the importance of life long education and work programs and has been actively involved in research and development in this area. In the NIE "FY 1978 Program Plan" for the Education and Work Group (12), NIE stated: "Under the leadership of Dr. Kenneth Hoyt of the U. S. Office of Education, a national consensus of the definition, goals and objectives of career education has developed."

Additionally, definitions have emerged from states with active career education programs. Jesser (15) has identified seven such definitions that serve as examples of the concepts of career education. In his discussion of career education, Jesser (15) concludes that the concept of career education is made up of the following basic characteristics:

1. In scope, career education encompasses educational experiences beginning with early childhood and continuing through the individual's productive life.

2. In early childhood, career education provides an awareness of self in relationship with the world of work, as well as direct experiences to motivate and captivate the learner's interest in the basic skills being taught.

3. As children move through school, they increase their familiarity with the world of work and acquire knowledge necessary to obtain meaningful employment after leaving school.

4. Career education also makes the provision to prepare individuals for employment and, later in their career, to upgrade their skills, to update their knowledge, and to retrain them for a new job if they wish it.

5. Career education combines the academic world with the world of work. It must be available at all levels of education, from kindergarten through the university. A complete program of career education includes self-awareness of the world of work, broad exploration of selected work clusters, and career preparation for all students. This calls for all basic education subjects to incorporate career education as activity, motivation, and methodology.

Based upon the information presented above, it is evident that career education is beginning to have an increasingly important role in educational programs. Although there is general support for career education programs, relatively little planning of programmatic development of career education has been done on the basis of empirical data. As a result of this, in each state's application for federal assistance through Subpart C - State Plans of the Career Education Program (Section 402 and 406 of the Educational Amendments of 1974), it is necessary to include information on how the state plans to conduct a needs assessment in career education. Each application is reviewed using the criteria and weighting procedure shown in Table 1. Examination of the criteria and points reveal that major emphasis is placed on the needs assessment.

Table 1

Criteria Used for Evaluating Subpart C - State Plan Applications

	Criteria Used	Maximum Points
1.	Evidence of Need	10
2.	Advisory Group	10
3.	Needs Assessment	25*
4.	Resource Identification	15
5.	Development of Plan	20
6.	Personnel and Management	15
7.	Budget	5
	Total Points	100

In relationship to the needs assessment criteria the federal regulations (1) state:

> Needs assessment. The application fully describes the procedures to be used and the areas to be covered in conducting the needs assessment. Survey techniques planned are described in detail. The procedures will assure identification of the career education needs of all children within the state. If a career education needs assessment has already been initiated, the data are sufficient, of high quality, and support the conclusions drawn.

Although there is an increased emphasis on the use of needs assessment techniques to obtain empirical data for use in planning career education programs, state directors/coordinators do not have ready access to information related to needs assessment. Furthermore, the area of needs assessment has been rated by the state directors/coordinators as the highest priority for staff development. Therefore, this paper has been prepared to help state directors/coordinators become more knowledgeable about needs assessment in career education. The remainder of this paper describes:

1. What needs assessment is;
2. Who should be included in a needs assessment of career education;
3. What variables should be included in a needs assessment effort;
4. How a needs assessment effort might be conducted;
5. Examples of needs assessment efforts presently available;
6. Areas for future work; and
7. A bibliography of needs assessment materials.

WHAT IS A NEEDS ASSESSMENT?

Webster defines a "need" as being "a lack of something requisite, desirable or useful." In education, Kaufman (16) states that needs assessment is a process for determining the difference or discrepancy between "what is" and "what should be" occurring and for placing priorities among them. In broadest terms, a needs assessment measures the gaps between the actual status of a program and the desired or ideal status. These gaps or needs, when identified, are then prioritized or ranked in order of importance. Needs assessments can then be used as a systematic management tool in both program planning and development. In summary, a needs assessment is a systematic (step by step) procedure that identifies major program needs and ranks these needs in order of importance.

Coffing (7) has stated that a needs assessment answers the question, "Who needs what, as defined by whom?" In this context, who refers to the group(s) in need, what refers to specific program content or objectives and whom relates to those groups who should provide input into assessing the amount of need.

While there are various models or approaches to follow when conducting a needs assessment, there is general agreement that there are four major and essential components or steps. These four steps are:

1. Identify program goals or objectives that need to be assessed.

2. Determine procedure for determining and measuring the present status of these goals and objectives.

3. Compare differences or discrepancies which exist between the desired goals (step 1) and the actual status of the goals (step 2).

4. Assign priorities or rankings to the discrepancies or needs found in step 3.

Completion of the above four steps in a statewide assessment of career education will provide useful information to program planners. From the process used and the data collected, the state career education coordinators will be able to:

1. Develop and validate state level goals for career education.

2. Identify state level strengths in current career education programs.

3. Identify state level educational problems and needs in career education.

4. Determine the range in quality of career education programs within the state.

5. Provide data to justify applying resources to some needs and not to others.

6. Increase validity, reliability and accountability in the decision making and program planning process.

7. Determine prioritized areas of need to emphasize within the state plan for career education programs.

Needs assessments are currently widely accepted and used in both education and industry because of the positive outcomes and program improvements which result from their use. The importance of conducting a needs assessment prior to the development of a state plan in career education cannot be overstated. This procedure will help a state develop an orderly system for planning and decision making. The information collected will help ensure the development

of a "targeted" plan which meets the needs of students, teachers and community. The data base collected will also serve as a comparison to future needs assessment findings. Needs assessments are not "one shot" approaches, but rather part of a continuous process which should occur at predetermined intervals (probably every 3 to 5 years). This process over time will provide a means of evaluating the implementation of the state plan and identify new program needs by measuring the amount of change or improvements in objective attainment, level of program implementation, attitudinal, cognitive and other relevant outcomes.

Needs assessments are part of a total evaluation process. In addition to doing the needs assessment and determining the difference between "what is" and "what should be," each state should also include other forms of evaluation. For example, the evaluation effort could include an assessment of what the state was providing for career education programs. The total evaluation process should also monitor what is being done ir career education. Furthermore, the total evaluation should assess the impact of the states career education effort. Needs assessment alone will not determine every change that needs to be made in each state's career education program, but it will provide each state with some of the needed answers to help shape the direction of career education. The next section of this paper will consider who could be included in a career education needs assessment.

WHO COULD BE INCLUDED?

When conducting a needs assessment, it is important that all of the individuals concerned with and interested in career education are included. For purposes of this paper, these individuals have been grouped into the following five categories:

1. Students
2. Parents
3. Educators
4. Employers and Employees
5. Government Agencies and Association Personnel

The remainder of this section discusses each of these five groups in greater detail.

Students

This group is often identified as being the most important. The ultimate outcomes of career education programs will generally be stated in terms of the learner. However, consideration should also be given to the needs of individuals who have left the school program for some reason (i.e., dropouts, withdrawals). Additionally, graduates of the school (former students) should also be considered in this particular group. This group should not be limited to students in traditional kindergarten to twelfth grade classes.

Parents

Another important group to be considered in assessing career education needs is the parents. This particular group has definite ideas related to what they expect a career education program to do for their children--what goals/objectives these programs should be designed to achieve. The parents will probably be one of the most concerned groups of individuals with whom you will be involved. Additionally, they are responsible for paying taxes to support the schools. In states/districts where parent groups are strong, one key group of parents would be parent-teacher organizations. Another group that should be included are the local boards of education. Since the majority of local boards of education have their own children enrolled as students, they have been placed in the parent group.

Educators

There are a number of sub-groups that should be considered in this category, including:

1. Classroom teachers
2. Local administrators (e.g., supervisors, principals, superintendents, etc.)
3. Supportive staff (e.g., counselors, specialized teachers, nurses, etc.)
4. Regional education agency personnel
5. State department of education personnel
6. Education professors in colleges and universities (e.g., teacher educators, researchers, administrators, etc.)

Employers and Employees

Any successful educational program needs a strong constituency if it is to survive. One way of helping to build a constituency is to consult with these individuals to obtain their opinions and reactions as they relate to career education needs. Groups that should be contacted for this purpose include representative from agriculture, business, industry, labor and the professions. Other groups would include labor unions, chambers of commerce, service clubs, religious organizations, volunteer organizations, local advisory councils, etc.

Government Agencies and Association Personnel

This group of individuals includes those agencies and associations that are concerned with education programs but are not usually included within the state education agency. Often, these agencies do operate some type of educational programs. Examples of these agencies are:

1. State Board of Education
2. Board of Regents for Higher Education
3. Independent Colleges and Universities Associations
4. Manpower Councils
5. Department of Labor
6. Department of Health and Social Services
7. State Legislators
8. Employment Security or Job Service
9. Rehabilitation Services
10. Department of Economic and Community Development
11. Department of Mental Health and Mental Retardation
12. Department of Rehabilitation and Corrections
13. Industrial Commissions

After discussing each of these five groups, it becomes apparent that there are more concerned individuals than can generally be included in initial needs assessment efforts. Each individual who is responsible for conducting a needs assessment in career education will have to prioritize the list and obtain information from those that are most important. Certainly, the available time and resources will influence this decision.

Regardless of the number of persons selected for inclusion in the needs assessment, every effort should be made to insure that the group is representative of all cultural, economic, educational, and racial backgrounds. It should also include representation from the disadvantaged, the handicapped, and from both sexes. Furthermore, consideration will need to be given to a geographic representativeness of the persons included in needs assessment. A needs assessment that does not include some representation of these groups may result in biased career education needs.

WHAT COULD BE INCLUDED IN A NEEDS ASSESSMENT?

The determination of what is to be included in a needs assessment effort is one of the most critical decisions faced by state directors/coordinators of career education. Basically, that which is included will be the result of the stated goals or learner outcomes for career education. In the case of many state career education programs, there are already goals and outcome statements prepared. However, since each state has not developed its career education program around the same conceptual scheme or format, variations in content is to be expected. Furthermore, most states have not attempted to verify these goals with their constituencies prior to program development.

The actual determination of that which is included will, of necessity, need to be left up to each state. However, it seems appropriate, in this paper, to list the following types of information that would be helpful in assessing career education needs:

- Knowledge of career education and associated goals and outcomes
- Attitudes toward career education and associated goals and outcomes
- Ability to perform career education outcomes
- Career interests and aspirations
- Opportunities for employment
- Opportunities for additional education and/or training
- Potential or actual dropout information

- Migration trends
- Unemployment rates
- Resource levels

  Physical (e.g., materials, equipment and supplies)
  Human
  Physical

- Need for training and re-training of employees
- Need for training and re-training of education personnel

It will be a difficult task to collect all of the information listed above and do a complete needs assessment in one year. Furthermore, it is important not to gather information that is already being collected by another individual or agency. The problem, then, becomes one of determining what needs will be assessed first. One method of setting priorities would be to involve the state advisory council for career education in helping to select those variables that should be assessed first. An additional benefit of this involvement would be to discuss the ways in which arrangements could be made to identify and cooperate with existing data bases so as not to duplicate information. Some examples of existing data bases that might be included are: public opinion polls such as the Gallup Poll of the Public's Attitude Toward the Public Schools, statewide assessment programs, national assessment programs, other needs assessments conducted by the state education agency (e.g., Title III [now Title IV-C], vocational education, etc.), economic indicators from state departments responsible for this information (e.g., Department of Labor, Employment Securities, etc.), state education agency records and statistics, and Bureau of the Census publications (e.g., population, manufacturing and mineral industries, agriculture, etc.). Bureau of the Census publications

are also available for cities, counties, Standard Metropolitan Statistical Areas (SMSA). and states. These publications could be of particular value to a state director/coordinator of career education in planning and conducting needs assessment efforts.

HOW COULD A NEEDS ASSESSMENT BE CONDUCTED?

The literature shows that there are various approaches and models developed to complete a needs assessment. Some of these standardized approaches (PDK, Battelle, CSE, etc.) are discussed in a later section (p. 51). While the techniques may vary somewhat, it is important to consider certain tasks which can facilitate the implementation of a needs assessment. In this paper, these tasks are considered in three phases: Planning, Implementation, and Utilization. This section discusses each of these phases and associated tasks.

Planning Phase

Planning is a crucial step in any research and development activity. Tasks that should be considered in the planning phase of needs assessments are:

- Select a Needs Assessment Task Force
- Appoint a Chairperson to Coordinate Task Force Activities
- Obtain Services of a Research and Testing Specialist
- Determine Role of the State Education Agency
- Determine Purpose of Needs Assessment
- Develop Planning Matrix

  Decide what factors/variables will be assessed
  Decide which groups will be included
  Determine means of assessment
  Determine budget/time constraints

Select a Needs Assessment Task Force

Because of the number of variables involved and the scope of completing a statewide needs assessment, it is desirable to form a task force or needs assessment committee. This task force should include 8-15 members with varying backgrounds and interests in career education. This task force should be as representative as possible with people from education, state government and industry since all have important input into career education. Specifically, task force members might include participants such as:

1. Representatives from state government (outside of education with a concern for education)
2. Representatives of State Department of Education (state career education coordinator, state vocational education coordinator, etc.)
3. Local school district administrator
4. Teacher and/or curriculum developer
5. School guidance counselor
6. High school students
7. Parents
8. Representative of industry/business
9. Representative of labor
10. School board member
11. Career education specialist (University professor, director of curriculum program)
12. Community leader
13. Research and testing specialist

It may be possible to utilize the state advisory council for career education for this task.

Careful selection of the task force is important since the composition of the committee will shape the nature of the needs assessment. In order to prevent the study from being one sided, it is necessary to include people from varying background with different perceptions of career education. Every effort should be made to insure that the group is representative of all cultural, economic, educational and racial backgrounds. It should also have representation from the disadvantaged, the handicapped, and from both sexes. Furthermore, consideration will need to be given to the geographic representativeness of the group. While it is important to have representatives with diverse interests, an attempt to limit the size of this core committee will help facilitate and expedite the entire process. Participants should be selected based on their interests and current understandings of career education and their ability to be an involved, contributing member of the task force. The members of the task force should be aware of their role in the team process and the time commitment they need to make to this endeavor.

Appoint a Chairperson to Coordinate Task Force Activities

The appointment of a task force chairperson to coordinate the planning process and facilitate the team approach within the group is essential. The chairperson appointed should be selected with the following abilities in mind: (1) ability to organize and plan efficiently; (2) ability to facilitate the group process; and (3) ability to work well as a team member.

Obtain Services of a Research and Testing Specialist

The task force may find it helpful if a research and testing specialist is involved in the planning process at the onset. This person would bring valuable experience that would help direct the technical aspects of the study (e.g., sampling plan, developing

objectives, limiting the scope of the study, developing instrumentation, analyzing results, preparing final report, etc.). This person would report directly to the chairperson and would be responsible for completing assigned tasks between task force meetings. While it would be ideal for this person to be knowledgeable and have had experience with career education evaluation and instrumentation, it is not absolutely necessary. A person with a background in research methodology and a willingness to become familiar with career education evaluation should meet the needs of the task force.

State education agencies (SEA's) often have individuals in their organization that could be helpful in this effort. Some SEA's have Planning, Research, and Evaluation (PRE) Units or Research Coordinating Units (RCU's) who have people knowledgeable about research and statistics. Another source would be people from nearby colleges and universities. Also, consultants are another source of assistance for this task.

Determine Role of the State Education Agency (SEA)

There are a number of ways that states can develop needs assessments in career education. One option would be to utilize state staff to develop the needs assessment. Another option available to states would be to employ external consultants. Additionally, one of the educational labs and centers could be contracted to develop a needs assessment. Yet another source of assistance would be private nonprofit educational agencies. Finally, commercial companies sometimes offer this type of service. Undoubtedly, there are other sources of needs assessment help that are available to states. The state career education director/coordinator should develop a list of potential sources of needs assessment assistance and the associated advantages and disadvantages of each.

There are also at least three options available in how the SEA chooses to work with local districts in implementing the needs assessment.

Option 1: The state assumes all responsibility for the needs assessment. The state develops/obtains instrumentation, develops sampling, administers instrumentation and analyzes results.

Option 2: The state assumes the majority of the responsibility for tasks, but gives some responsible/control to local districts involved in the assessment. The state develops/obtains instruments and develops sampling plan. The instruments are administered by the local districts and are forwarded to the state. The state analyzes the results.

Option 3: The state assumes some responsibility but gives the majority of the responsibility to local schools. The state develops/obtains instruments and develops sampling. The instruments are administered and analyzed by the local school district. The results are reported to the state.

There are advantages and disadvantages corresponding to each of the options. The first option gives the state a dominant role in the entire process. It might not be cost effective for the state to hire personnel to administer the instrumentation when this task could be completed by personnel already employed at each district. This option, however, reduces the potentiality of confounding variables caused by improper administration of instruments; insures the administration to the correct sample; and provides the state with a data base that could be used to make comparative district profiles. While these profiles would be seen as a means of evaluating one district's performance over another, each state should insure participating districts that the profiles will be collectively used to determine the range and degree of implementation of career education in various areas and types of school districts (i.e., suburban, rural, and urban) and not for purpose of evaluating.

The second and third options result in the state granting some control over the administration of the study. The second option allows for local involvement, but still insures generalizability across various districts. It is important that the same instruments and testing procedures be used at each district. The state should probably analyze the results to allow for a uniform system of reporting, thereby, making viable comparisons. Having the state analyze the findings may be the best alternative since it tends to be more cost effective and insure impartiality.

Determine Purpose of Needs Assessment

The needs assessment task force's first major task is to delineate in writing the major focus of the needs assessment. For example:

- Will needs assessment examine the range of implementation of career education programs across the state?
- Will it identify exemplary career education programs which should be implemented on a state level?
- Will it identify regional areas where career education is lacking?
- Will it assess student attainment of career education objectives?
- Will it determine teacher attitudes toward career education?
- Will it assess community/business/parental attitudes toward career education? Will it compare population differences (e.g., sex bias, racial biases, etc.) toward careers and availability of career education counseling and guidance?
- Will it ascertain the knowledge/attitude/performance of career education students?
- Will it assess the availability and quality of career education guidance and couseling?

Due to the magnitude of the potential scope of this study, it will be necessary to limit the assessment to those concerns which are most important and from which changes/modifications can be made based on the information collected. The study should be directed to answer key policy questions from which policy decisions, such as how implementation of new programs can be made. After deciding the

primary purposes, a planning matrix (see Figure 1) can be developed. This planning matrix should be completed prior to the other planning tasks. The planning matrix should include items such as:

- the primary purposes of the needs assessment
- utilization of data collected
- the variables/factors to be studied by each purpose
- the groups which will be assessed
- the means of assessments (e.g., survey, standardized test, attitude scales, etc.)
- time/administration date of instruments

Several examples of potential purposes states may have in conducting a needs assessment in career education are presented in Figure 2. The policy decision(s) which can be made from the information collected are also listed in the Figure. Figures 3 and 4 (see pp. 31-32) illustrate how Figure 1 could be completed.

Develop Planning Matrix

Once the purposes or focus of the study has been defined, a plan of implementation is needed. The initial plan for each of the needs assessment's purposes can be obtained by completing the planning matrix. As a minimum, this should include:

- Factors/variables which should be included
- Groups which will be included
- The means of assessment
- Budget/time constraints

Figure 1

Planning Matrix - Career Education Needs Assessment

Purposes	Utilization of Data	Variables	Groups	Means of Assessment	Administration Date

Figure 2

Purposes and Utilization of Needs Assessments*

Purposes	Utilization of Data
1. To validate state level objectives of career education.	1. To revise the objectives based on input collected.
2. To assess student attainment of state level objectives.	2a. To identify current strengths and weaknesses of career education programs. 2b. To implement programs which will correct weaknesses.
3. To assess teacher knowledge and attitudes toward career education.	3. To develop workshop topic areas which will meet teacher needs.
4. To assess the range of implementation of career education programs across the state (regional differences).	4. To allocate funds to regional areas where career education is lacking.
5. To identify exemplary career education programs and materials.	5. To inform districts or materials/programs which have been successful.
6. To identify areas where new curriculum materials are needed.	6. To allocate funds for the development of needed career education materials.

* The first, second and third purposes relate specifically to needs assessments. The fourth to sixth deal with a larger scale evaluation of career education. When doing a needs assessment, each state can expand its focus to other related areas and collect different types of information simultaneously.

Decide which factors/variables should be included. While variables and factors will differ from state to state depending upon the primary focus of the needs assessment, there are some types of information which should be considered for inclusion in a needs assessment in career education. These types of information were identified in the section on what should be included in the needs assessment.

After the variables have been identified, the purpose of the needs assessment may need to be re-examined and original purposes not included in the planning matrix can then be added. For example, if initial validation of state level objectives is planned, the needs assessment should probably address their relevance, importance and credibility.

After the variables have been identified for each of the study's purposes, add them to the planning matrix. For example, if the purpose was to assess student attainment of state level career education objectives, the variables might include: student academic performance, work values, decision making skills and occupational knowledge.

Decide which groups will be included. After defining the primary focus of the study and the key variables, determining which groups to assess and include will be a relatively easy task. These groups could include teachers, administrators, students, former students, business/industry representatives, parents and curriculum developers, etc. A problem sometimes can arise when trying to delimit or "target in" on which segment of the group needs assessing. For example,

in assessing student attitudes toward career education, will it include students K-12? What about recent graduates? Will an equal representation of students in academic/college preparatory programs as well as those enrolled in vocational education programs be included? What about sex differences? Will an individual's sex influence his/her attitudes toward career education and if differences exist, when do they occur? What about regional differences? Do students in rural communities differ in attitude from suburban or urban students? What about minority differences? Do Black, Mexican American, or Native American students have different attitudes than Caucasians?

Similar problems of delimiting the population arise when trying to obtain an assessment of the perceptions business and industry have toward career education. Depending upon the nature of work and geographic area, different industries may feel career education should meet different needs. In such a case, how to include a representative sample of business and industry may create a difficult problem. Having a resource person from business/industry on the task force as well as a researcher can help to provide alternative solutions to this problem.

Determine the means of assessment. At this point, one needs to answer "How will the information be obtained? What method will be used to assess the groups? Depending upon the nature of the purpose, a number of alternatives are available. These include:

- Survey instruments
- Attitude scales
- Cognitive tests of knowledge

- Standardized achievement tests
- Interviews
- Site visitations

It is helpful to know as soon as possible what means of assessment will be used in order that sufficient time is allowed for the development or procurement of instruments. It will also provide an estimate of the costs that can be expected to complete the needs assessment since some methods of analysis cost less than others.

Determine Budget/Time Constraints. The scope of a needs assessment study will depend on fiscal, manpower and time resources available. If the needs assessment is designed to assess various groups and to serve different purposes, it is recommended that the task force prioritize each purpose and develop budget/time lines for the highest priority needs and concerns. The cost for completing the needs assessment will vary and depend on the elaborateness of the design, the number of groups included in the analysis, the number and types of instruments administered, the elaborateness of the sampling design and the extent of the data analyses. Two sample needs assessment planning matrixes (Plan A and Plan B) have been developed to present the varying degree of the scope of the study. The matrix for Plan A is presented in Figure 3 and the matrix for Plan B is presented in Figure 4.

Plan A includes the essential tasks of validating state level career education objectives and assessing the student attainment of those objectives. This plan does not provide as large and varied a data base as Plan B.

Plan B is a more elaborate design to evaluate career education objective, needs, and programs across the state by regional areas. This design might be considered more of a statewide evaluation of career education. The implementation of this plan could take several years to complete unless considerable manpower and fiscal resources were available.

Regardless of the scope of a needs assessment survey, it is essential that time lines be developed which set completion dates for the major tasks that need to be completed. One reference which should assist in project planning, time estimation, scheduling and resource allocation has been written by Cook (8).

Figure 3

Plan A

Planning Matrix - Career Education Needs Assessment

	Purposes	Utilization of Data	Variables	Groups	Means of Assessment	Administration Date
1.	To validate state level objectives of career education	To revise the objectives based on input collected	Relevance Importance	Parents Teachers Business/ industry	Survey instrument to be developed	Nov. 1977
2.	To assess student attainment of state level career education objectives (these objectives have been revised based on findings from purpose #1)	To identify current strengths and weaknesses. To implement programs that will correct weaknesses	Decision-making Occupational knowledge Work values Self-understanding Academic performance	Students 9-12 (academic & vocational programs)	Attitude survey Occupational knowledge test Standardized test results	Feb. 1978

Figure 4

Plan B

Planning Matrix - Career Education Needs Assessment /Evaluation

	Purposes	Utilization of Data	Variables	Groups	Means of Assessment	Administration Date
1.	To validate state level objectives of career education	To revise the objectives based on input collected	Relevance Importance	Parents, teachers, and business/ industry	Survey instrument to be developed	Nov. 1977
2.	To assess student attainment of state level career education objectives (these objectives have been revised based on findings from purpose #1)	To identify current strengths and weaknesses. To implement programs that will correct weaknesses.	Decision-making Occupational knowledge Work values Self-understanding Academic performance	Students 9-12 (academic & vocational programs)	Attitude survey Occupational knowledge test Standardized test results	Feb. 1978
3.	To assess teacher knowledge and attitudes toward career education	To develop statewide workshop which will meet teachers' needs	Self understanding Work values Attitudes Career education materials/ programs used	Teachers K-12	Attitude survey Cognitive test of career education	Nov. 1977
4.	To assess the range of implementation of career education programs across the state (regional differences)	To allocate funds to regional areas where career education is lacking	Amount of local funds available for career ed. Types and amount of curriculum material purchases Types of career ed. programs Personnel by district Number/percent of students involved in career ed.	Local school administrators	Resource survey form	Dec. 77

Figure 4 (continued)

Plan B (continued)

Purposes	Utilization of Data	Variables	Groups	Means of Assessment	Administration Data
5. To identify exemplary career education programs and materials	To inform other districts which programs/ materials have been successful	Career education materials	Administrators Career education specialists/ coordinators	Resource survey form	Oct. 1977
6. To identify where new curriculum materials are needed (K-12)	To allocate funds to develop needed materials	Career education materials	Administrators Career education specialists/ coordinators Teachers	Resource survey form	Oct. 1977

* Purposes 1-3 relate specifically to needs assessment, purposes 4-6. can be seen as part of career education evaluation.

Checklist for Planning Phase

As each task in the planning phase is completed the date should be recorded. This information will assist other planners to obtain an estimation of the amount of time needed to plan a needs assessment. A checklist for recording this information is presented below in Figure 5.

Figure 5

Checklist for Planning Phase

Task	Completed	Date
Select a needs assessment task force	_____	_____
Appoint a chairperson to coordinate task force activities	_____	_____
Obtain services of a research and testing specialist	_____	_____
Determine role of the state	_____	_____
Determine purpose of needs assessment/how will the information be utilized?	_____	_____
Develop planning matrix		
Decide which factors/variables should be included	_____	_____
Decide which groups will be included	_____	_____
Determine the means of assessment	_____	_____
Determine budget/time contraints	_____	_____

Implementation Phase

Once the planning phase has been completed, it will be possible to begin the implementation phase of the needs assessment. While each state may focus on different variables, it is anticipated that most states will be concerned with the assessment of state level objectives in career education. This section will discuss tasks involved in that process. The major tasks will include:

- Develop/revise/select state level objectives (learner outcomes) to be addressed
- Develop/select instrumentation to assess desired achievement (importance) of state level objectives and actual achievement of objectives
- Develop sampling strategies
- Select method(s) to be used in identifying needs (determine difference/discrepancy between actual and desired achievement levels)
- Identify priorities

Develop/Revise/Select State Level Objectives

To complete a needs assessment it is necessary to have two types of information:

1. A clear statement of measurable and desired outcomes (what should be) and
2. A clear indication of the current status in relation to the desired outcome (what is).

For the first type of information, measureable outcomes or objectives, existing objectives or those available from other sources can be used. Existing objectives can be found in the following sources:

- The U. S. Office of Education (14) has prepared a list of ten learner goals.

- The Comprehensive Career Education Model (CCEM) developed by The Center for Vocational Education at The Ohio State University (9) has eight career elements and outcomes.

- The State of Texas (3) has developed nine basic learner outcomes for career education.

- The State of Michigan (18) has developed a number of goals and performance indicators.

- The Experience Based Career Education (EBCE) (11) also has a list of learner outcomes.

- Another source of learner outcomes are those for the Vocational Education Part D Projects (11).

For those states who wish to develop and validate their own state level career education objectives, English and Kaufman (10) have described the basic procedures that could be followed. This process is very time consuming and should only be considered if existing lists of learner outcomes/objectives do not reflect a state's philosophy of career education. The steps involved in this process include:

1. Goal derivation
2. Goal validation
3. Goal prioritization--system of ranking goals in importance
4. Goal translation
   a. The development of performance indicators
   b. The development of detailed performance objectives
5. Validation of performance objectives
6. Goal reprioritization
7. Futuristic impact
8. Rerank goals based on futuristic impact

Witkin (24) has described the advantages and disadvantages of goal setting and goal rating methods as shown in Figure 6. Depending upon the circumstances within each state, the state will need to select which approach and method(s) it will use to develop and validate (rate) its career education objectives.

Figure 6

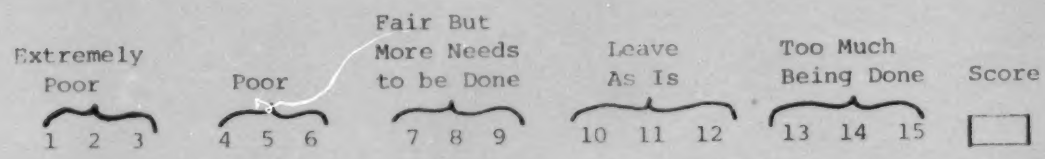
Advantages and Disadvantages of Alternative Procedures Used in Goal Setting

Procedure	Advantages	Disadvantages
Goal Setting:		
Generate own goals	Encourages community involvement; partners must work out their philosophy; different groups reconcile differences on educational purposes; partners feel a commitment to the goals.	Very time-consuming; impetus for needs assessment may be dissipated; partners may think that the list of goals equals "needs"; differences among client groups must be reconciled.
Use preset list	Takes much less time; goals usually at a consistent level of generality; goals less likely to be confused with solutions or problems; usually have been set by experts, and likely to be stated more consistently; prevents "reinventing the wheel."	There may be too many or too few for local situation; goals may not apply; may be too narrow or too broad; may include only immediate goals, not future ones; often cover only the congnitive domain; some lists confuse learner and institutional goals; may limit the creative thinking of the group.

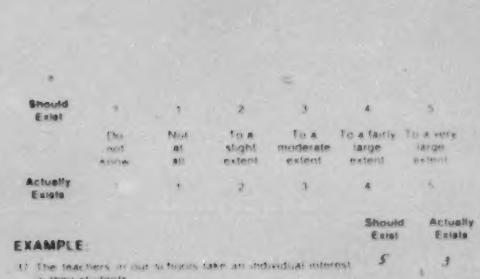
Develop/Select Instrumentation to Assess Desired Achievement (Importance) of State Level Objectives and Actual Achievement of Objectives

Once the learner outcomes have been determined, it is then necessary to develop or select instruments which will measure the desired level of achievement (ideal) and the actual level of objective attainment. There are several standardized response formats that are used for needs assessment instruments. These formats are designed for individual raters to assess "what is" versus "what should be" occurring for each student outcome or program objective. Some of the possible instrument formats are presented in this section.

PDK (Phi Delta Kappa) Planning Model. Each goal is assigned a number from the scale below in response to the question, "How well are the current school programs meeting this goal?"



Battelle School-Community Climate Survey. Each item on the questionnaire makes a statement about a school. Respondents rate in their opinion, what extent should the stated condition exist and what extent the stated condition actually exists.



SHOULD EXIST	ACTUALLY EXISTS
0 Do not know the extent to which the stated condition should exist	0 Do not know the extent to which the stated condition exists
1 Stated condition should not exist at all	1 Stated condition does not exist at all
2 Stated condition should exist to a slight extent	2 Stated condition exists to a slight extent
3 Stated condition should exist to a moderate extent	3 Stated condition exists to a moderate extent
4 Stated condition should exist to a fairly large extent	4 Stated condition exists to a fairly large extent
5 Stated condition should exist to a very large extent	5 Stated condition exists to a very large extent

Lakota Needs Assessment Survey. This survey (17) contains a list of statements about different educational program and student goals. After reading each goal, respondents rate (from 1 = low importance to 5 = high importance) how important they consider each goal to be. Then they rate (from 1 = low achievement to 5 = high achievement) how well they feel each goal is presently being achieved. Ratings are indicated by circling the appropriate number (1-5). If respondents don't know or are uncertain about how well a goal is being achieved, then they circle ?.

EACH STUDENT SHOULD HAVE THE OPPORTUNITY TO . . .	Importance						Achievement					
Career Education	Low				High		Don't Know	Low				High
Obtain knowledge of various occupations and relate it to individual interests and abilities	1	2	3	4	5		?	1	2	3	4	5
Obtain vocational or career counseling.	1	2	3	4	5		?	1	2	3	4	5
Obtain counseling concerning personal problems.	1	2	3	4	5		?	1	2	3	4	5

Dallas Model. Each objective goal is rated on two scales which assess desired emphasis and actual emphasis in the schools.

Actual Emphasis	15 14 13 Receiving too much emphasis	12 11 10 Receiving more than adequate emphasis	9 8 7 Receiving adequate emphasis	6 5 4 Not receiving adequate emphasis	3 2 1 Receiving not enough emphasis
Desired Emphasis	1 2 3 Substantially decrease emphasis	4 5 6 Decrease emphasis	7 8 9 Continue present emphasis	10 11 12 Increase emphasis	13 14 15 Substantially increase emphasis

Yuskiewicz. (similar to approach used by Battelle)

Each objective is rated twice using the following scale:

Always	Often	Sometimes	Rarely	None	Don't Know
5	4	3	2	1	0

The respondent, depending on format chosen, can write in the response (0-5) or circle the corresponding number.

Should Exist	To what extent do you think our schools should help students to:	Actually Exists
0 1 2 3 4 5	1. Objective _____	0 1 2 3 4 5
	2. _____	

In addition to using subjective information on individuals' perception of conditions, more objective types of instrument/approaches to collect information (e.g., cognitive tests, occupational knowledge tests, occupational attitude scales, etc.) should also be considered. Witkin (24) describes, as shown in Figure 7, the advantages and disadvantages of using various approaches to assess "the actual" attainment of objectives and learner outcomes.

In the section on the description of career education needs assessments (p. 57), existing materials and instruments are presented. The decision, whether to use an existing instrument or to develop one depends on how well the existing instrument measures the objectives that need assessing. If there is a good match between the attitudes or content area covered, it is recommended that an existing instrument be used. This will save considerable developmental time and will help ensure that the instruments are valid and reliable. If student academic performance is to be included in the assessment, it is advantageous to use existing test results or make use of state wide testing plans.

Figure 7

Advantages and Disadvantages of Selected Data Collection Procedures

Procedure	Advantages	Disadvantages
Determination of actual objective attainment		
Perceptual judgments of parents, teachers, and students	Can compare perceptions of different groups; perceptions are valid data of a kind; easy to compare goal importance with goal attainment on similar scales; usually easy to quantify; can be related to "hard" data.	May not reflect the actual situation; if sampling is inadequate, results will be biases; ease of quantifying may obscure invalid data; tends to over-simplify the problems; based on limited knowledge.
Standardized tests (norm-referenced)	Data are quantifiable; data can be easily compared over time, for ongoing assessments; data can be related to goals or objectives; groups of students may be compared; provides baseline data on the level of need.	Test norms may not be appropriate for a given population; tests may be inappropriate for the goals used; if too much reliance on test, other data and values may be overlooked; usually reflects only cognitive achievement.
Criterion-referenced tests	Can be directly related to local goals; can help define "what should be" as competencies to be mastered.	Criterion levels may be arbitrary or invalid; may be difficult to interpret scores for degree of "need."
Student work	Gives evidence of creativity, divergent thinking not tapped by most tests; can be related directly to school goals.	Difficult to quantify data and to compare groups for extent of "need"; some goals might not have appropriate "products"; more time consuming than examining ratings or tests.

Develop Sampling Strategies

> "Sampling techniques can significantly reduce the time, money and effort required to collect, analyze, interpret and summarize data from a group, without seriously affecting the accuracy of the information. These savings can be invested in collecting information from other sources to obtain a more complete picture of the actual situation." (6)

When planning a sampling strategy, the following should be considered:

- Groups/populations to be assessed (e.g., students, teachers, parents, industry, etc.)
- Sub-populations within groups (e.g., disadvantaged students, handicapped, minority, etc.)
- Regional differences across the state
- Variations of types of districts in state (e.g., large city, suburban, rural)
- Varied purposes/objectives of the study
- Varied methods of assessment (e.g., survey, site visitation, cognitive tests, etc.)

Looking across the objectives, types of instruments, methods of assessment, and groups to be included in the entire scope of the study, an attempt should be made to use the same sample to meet more than one of the listed purposes. For example, if both exemplary curriculum materials and areas where new materials are needed are to be identified, one instrument could be developed to meet both purposes and administered to the same sample. This type of consolidation will save much time in administration, collection and follow-up of instruments.

It is recommended that as many grade levels and as many different types of schools be included in the sampling plan as possible. This will help to identify problem areas across a wide coverage of grades and types of schools. The schools should probably be grouped by grade levels and/or by some variable (e.g., suburban, urban, or rural, or

disadvantaged, ect.). When selecting grade levels, careful attention should be given to the statewide testing program and existing data from federally funded programs (e.g., Title I, etc.).

A possible sampling might include:

Elementary grades - 1-3-5
Junior high - 8th grade
Senior high - 10th-12th grade

The task of selecting representative samples should be given to a research and testing specialist. If none is available, someone on the task force should become familiar with sampling theory. One reference which will be helpful to a non-research person is Survey Research Methods by Earl Bobbie (2). (Besides sampling, this book also describes the entire process of survey research--from conceptualization of the problem to writing the final report.)

Select Method(s) Used to Identify Needs

Determining the discrepancy or gap which exists between the desired goals and the actual conditions is often called discrepancy analysis. This method of analysis is easily completed when the same objective(s) has been rated on two parallel scales (e.g., importance and achievement) and simple differences are obtained between the means of the two sets of ratings. For example, in one case the respondents rated the overall importance of objective A as 4.5 while they felt the obtained achievement was about average (2.9). The difference between the actual (A) and the desired (D) is termed the "need index." In this example, the need index = 1.6. Generally, the larger the "need index" the greater the gap that exists between the desired and actual conditions. Graphically, the example mentioned would look like this:

	Scale Values	NEED INDEX
	1 2 3 4 5	
Objective A	A D (2.9) (4.5)	1.6

A graphic display of results can visually depict differences between groups in their responses/perceptions of objective value and attainment. An example of the differences between actual (A) and desired (D) performance are portrayed below:

Objective B

Scale Value

Group	1 2 3 4 5	NEED INDEX	Sample Size
Parents	A D (3.5) (4.4)	.9	250
Teachers	A D (1.7) (4.4)	2.7	125
Students	A D (1.8) (3.6)	1.8	400
TOTAL	A D (2.3) (3.9)	1.6	775

The example above, demonstrates the importance of looking at both total and group results. The total group results combined indicate a "need" exists, but the true nature of the need is camouflaged until separate group results are reported. In this case, both parents and teachers feel this goal is very important. But, because of different experiences/perceptions, there is major disagreement between how parents and teachers perceive the attainment of the goal. Students,

on the other hand, agree with the teachers that the goal is not being achieved; however, they do not assess its importance to be as high as teachers and parents. What implications does this have? Looking at the sample sizes, it is apparent that the sample of teachers is smaller than the other groups. In a case like this, it may be desirable to weigh the respondents' mean score. These weights can either be assigned to balance the difference in sample size or they can be assigned arbitrarily to give more weight to various populations regardless of sample size.

Witkin (24) describes the advantages and disadvantages of approaches or methods of analysis that can be used for discrepancy analysis as shown in Figure 8.

Figure 8

Advantages and Disadvantages of Various Approaches to Discrepancy Analysis Techniques

Discrepancy Analysis	Advantages	Disadvantages
Simple differences between two sets of ratings	Easy to do; does not need consultant help or computer; low cost and time.	Oversimplifies the decision making; if either set is invalid, the results will be invalid; may provide irrelevant information.
Combined analyses in qualitative statements	Takes more factors into consideration; can integrate perceptual data with test scores and input data; allows more differentiation; usually more valid than difference scores.	Harder to do; more time consuming; most models offer no guidelines for this method; not as easy to communicate results to public.

Identify Priorities

Different needs assessment models take various factors into account when rating need statements. These factors include:

1. The initial rating of the importance of the goal
2. The ranking given each need by each group involved in the survey
3. The size of the gap between actual and desired level of performance
4. The likelihood of success of a new program
5. The assessment of existing programs--resources
6. The ability to change existing programs and resources
7. The validity and reliability of any standardized tests which were used
8. The validity of any sampling strategy used to determine actual status

Just as there are many needs assessment models, there are many diverse ways of rating critical need statements. Witkin (24) briefly describes the advantages and disadvantages of three general approaches as shown in Figure 9.

The second approach, "use highest ranked goals which also show highest discrepancy in goal attainment," has been given major attention in the literature. Some concrete examples using this technique will be discussed. The analysis requires that you compute for each goal by each group of respondents: (1) mean scores of desired level of achievement (importance), (2) mean scores of actual level of achievement, and (3) the discrepancey between the means of desired and actual achievement (need index).

Witkin (24) cited Hershkowitz's method of plotting the importance of the mean scores for goal importance and the mean scores for goal

Figure 9

Advantages and Disadvantages of
Procedures Used to Establish Priorities

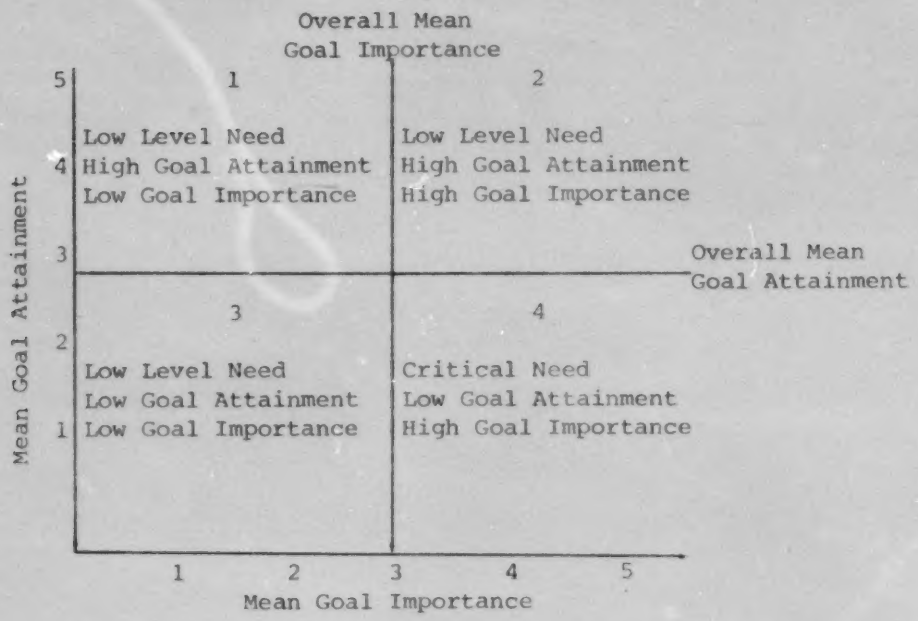
Procedure	Advantages	Disadvantages
SETTING PRIORITIES:		
Take goals rated highest in importance	Easy to do; shortens time for assessment, allows more time for program planning and action on goals.	Least valid method; a goal is not the same as a need.
Use highest ranked goals which also show highest discrepancies in attainment.	Fairly easy to do; takes two factors into consideration.	May oversimplify the real situation; does not take factors of feasibility or utility into account.
Decision rule (e.g., CSE)	Takes many factors into account; puts emphasis on priorities for action; results more likely to be implemented, because more specific than other methods	Takes more time; not as easy to explain to working committees; may seem too complex; may overemphasize utility at expense of innovativeness and new directions for the school.

attainment. After plotting the goal points, the overall mean goal importance score and the overall mean goal achievement score were computed. Based on these scores, quadrants were then drawn and used to determine the level of need for these goals. The resultant quadrants represent four levels of need as shown in Figure 10.

The program goals which were plotted in quadrants 1 and 2 have been rated as having a low level of need. Those program goals plotted in quadrant 3 also show a low level of need. However, the objectives which are plotted in the fourth quadrant are identified as "critical need"

Figure 10

Quadrant Method for Determining Critical Need Areas



goals. The gap or difference between the importance and attainment is sufficient to merit careful examination.

After the critical need goals have been identified, it is then necessary to prioritize these goals. While there are many methods that can be used to prioritize these goal statements, it is recommended that they be listed in rank order for each of those goals which have been identified as "critical need" by each of the response groups. From this ranking, it will be possible to determine if the same critical need has been identified by each of the response groups.

For descriptions of other techniques used to assign ratings or priorities to goals with applied examples, see Catalyst (6). In addition, Witkin (24) describes advantages and disadvantages of various methods and are presented in Figure 11.

Figure 11

Advantages and Disadvantages of Various Goal Rating Methods

Goal-Rating Methods	Advantages	Disadvantages
Card Sorts	Easy to use individually or in small groups; most people enjoy the process; allows for interaction, if desired.	May be too mechanical; difficult to do if the number of goals is very large; must have packaged materials or make them.
Rating sheets or goal-rating questionnaires	Easy to use; easy to duplicate materials; rater can see all goals or items at once.	Respondents may fall into a pattern due to the order of the items; not as interesting as card sorts; individual judgments only.
Paired weighting procedure	More exact than simple ratings or card sorts; people enjoy it; easy to get group ratings.	Process cumbersome if more than 10 or 12 goals; forced choices sometimes difficult.
Magnitude estimation scaling	Shows relative rankings; greater specificity; gives better data for analyzing reasons for discrepancies between respondent groups; easy to administer; shows response patterns of subgroups.	Scoring and data analysis more difficult than other methods--need computer; technique not widely known; takes longer to analyze and graph data than simple "difference" techniques.

Checklist for the Implementation Phase

Again, as each task in the implementation phase is completed, the date should be recorded. A checklist for recording the completion of each of the tasks in the implementation phase is presented in Figure 12.

Figure 12

Checklist for Implementation Phase

Task	Completed	Date
Develop/revise/select state level objectives to be addressed	_____	_____
Develop/select instrumentation assess desired achievement of state level objectives and actual achievement of objectives	_____	_____
Develop sampling strategies	_____	_____
Select method(s) to be used in identifying needs	_____	_____
Identify priorities	_____	_____

Utilization Phase

The last phase in this needs assessment is utilization. Although the critical needs can be determined mathematically, the more difficult tasks--translating the critical needs into workable activities to alleviate these needs--are not soo easily accomplished. The major tasks included in the utilization phase include:

- Develop alternative implementation strategies to meet identified needs
- Determine budget/resource allocations needed to implement each alternative plan

- Select "best" alternative(s) in terms of meeting needs and cost considerations
- Write state plan

Develop Alternative Implementation Strategies to Meet Identified Needs

It will probably be advantageous to involve the needs assessment task force again at this stage to examine the prioritized need areas that have been identified by the study. In most instances, there will be more than one way to reduce the identified need through various implementation strategies. The needs assessment task force or the state advisory council for career education could help develop alternatives to assist in reducing the specified needs. Possible alternatives will probably be the result of new ideas generated in brainstorming sessions, adoption of ideas from other states, or adaptations of existing activities. During the development of alternative strategies, the task force need not necessarily be constrained by available funds, personnel, time, etc. However, these cannot be totally ignored in the development of realistic alternatives.

Determine Budget/Resource Allocations to Implement Each Alternative Plan

The approximate costs should be determined for each realistic alternative strategy. Consideration should be given to items such as the amount of time, travel, materials, equipment, supplies, etc. that will be required to complete each of the alternative strategies. The total costs should include both direct and indirect expenses. Once the budget/resource allocations are completed, the process of selecting the "best" alternative(s) can begin.

Select "Best" Alternative(s) in Terms of Meeting Needs and Cost Considerations

The selection of the best alternative(s) for each need cannot occur independently. They must be judged in relation to other possible alternatives. Among the factors that must be considered in selecting the "best" alternative(s) are cost, time, political feasibility, consequences to other needs, relationship to the need, etc. Consideration will also need to be given to past experiences and potential worth of the alternative(s). Finally, a justification should be prepared that provides the rationale for the alternative(s) that is/are selected for inclusion in the state plan for career education.

Write State Plan

At this point, the alternatives selected to meet the critical need areas can be developed for the state plan. Consideration should be given to the development of both short- and long-range plans. The short-range plans should include goals, measurable objectives, strategies, activities and resources with associated responsibilities, time frame, and evaluation activities. Additionally, the process to be used in administering, monitoring, and updating should be specified. The long-range plans will probably not be as explicit but should show how the activities relate to the original need identified in the assessment activities.

Checklist for Utilization Phase

As with the previous two phases, a checklist has been prepared to assist in completing the utilization phase of the needs assessment (Figure 13). This completes the description of how a needs assessment effort might be conducted. It should be kept in mind that this

Figure 13

Checklist for Utilization Phase

Steps	Completed	Date
Conduct diagnostic planning sessions to determine which needs can be reduced/eliminated	_____	_____
Develop alternative implementation strategies to meet identified needs	_____	_____
Determine budget/resource allocations needed to implement each alternative plan	_____	_____
Select "best" alternative(s) in terms of meeting needs and cost consideration	_____	_____
Write state plan	_____	_____

description was not planned for any one state and should be modified, as necessary, to meet specific state requirements and needs.

DESCRIPTION OF EXISTING EDUCATIONAL NEEDS ASSESSMENTS

A number of needs assessment materials have been developed for use in education settings. These needs assessments have been designed for use in different settings (e.g., elementary schools, secondary schools, colleges and universities, etc.). The purpose of this section is to introduce the reader to general, broad-based needs assessment materials and techniques developed and widely used. These materials have not been developed specifically for career education. However, the needs assessment materials identified in this section might be used to obtain ideas and techniques for the development of more targeted career education needs assessment materials. A format has also been developed (Figure 14) for adding information on other needs assessment material as they are identified. This same format is used in presenting career education needs assessment materials in the next section. These materials are included as examples of the current materials. No attempt has been made to be comprehensive in nature. Other general sources are identified in the section on "How Could A Needs Assessment Be Conducted."

Figure 14

Format for Reporting Needs Assessment Materials

Title:

Date:

Availability:

Purpose/Content:

Intended Survey Population:

Type of Users:

Comments:

Title:

Alameda County Needs Assessment Model

Date:

1974

Availability:

Office of the Alameda County
Superintendent of Schools
685 A Street
Hayward, California 94541

Purpose/Content:

To determine information on pupils' knowledge, skills, and attitudes in reading, language development, mathematics, and multicultural education.

To determine parents and school staff opinions related to supporting the instructional areas, bilingual education, health and counseling services, and in-service needs.

Intended Survey Population:

Students, parents, teachers, and school staff

Type of Users:

Local elementary schools

Comments:

Parent survey is printed in English and Spanish. Pupil survey in published in both a readers' and nonreaders' version.

Title:

CSE Elementary School Evaluation Kit: Needs Assessment

Date:

1972

Availability:

Allyn and Bacon, Inc., Longwood Division
470 Atlantic Avenue
Boston, Massachusetts 02210

Purpose/Content:

To determine the importance of 106 goals related to elementary schools.

To select tests that will measure the important goals.

To interpret test scores for the important goals.

To identify critical need areas for the school.

Intended Survey Population:

Parents and Students

Type of Users:

Local Elementary Schools

Comments:

Title:

Educational Needs Assessment Handbook

Date:

1976

Availability:

Needs Assessment Program
Arizona Department of Education
1535 West Jefferson Street
Phoenix, Arizona 85007

Purpose/Content:

To provide assistance in designing, conducting and reporting needs assessments.

Intended Survey Population:

Parents, administrators, teachers, students and community groups

Type of Users:

Local and County School Districts

Comments:

Title:

Phi Delta Kappa Needs Assessment

Date:

1974

Availability:

Phi Delta Kappa, Inc.
Commission on Educational Planning
P. O. Box 789
Bloomington, Indiana 47401

Purpose/Content:

To rate the importance of 18 goals for education and rank the success of the school in reaching these goals. These goals are ranked and rated independently and in group settings.

Intended Survey Population:

Citizens and Educators

Type of Users:

Local School Districts

Comments:

Printed in both English and Spanish.

Title:

The School - Community Climate Survey

Date:

1976

Availability:

Battelle
Center for Improved Education
505 King Avenue
Columbus, Ohio 43201

Purpose/Content:

A systematic method for identifying and documenting the perceptions of the broad educational community in terms of: (1) the way services and programs are currently operating, (2) the way these programs and services should operate in the future, (3) asisqning priorities for change, and (4) compiling and presenting all the information in a format that is readily understandable and a useful working document for the board of education, administration, staff, students, parents and community at large.

Intended Survey Population:

Administrators and board members, teachers, students, and parents and community at large.

Type of Users:

Local School District and Colleges

Comments:

A computer program, users manual and survey manual are available in addition to the survey forms.

Battelle will also provide contracted technical assistance with the survey.

DESCRIPTION OF EXISTING CAREER EDUCATION NEEDS ASSESSMENTS

The advent of the term "needs assessment" is a relatively recent event in the educational world. It has received only limited treatment in the literature, and, most of this has been in the last few years. In as much as career education is an even newer term in the educational literature, information related to specific needs assessment techniques in career education is even more limited. The purpose of this section, then, is to identify existing needs assessment materials related to career education. The format that has been developed (Figure 14) can also be used for adding information on other career education needs assessment materials in career education as they are identified and become available. These materials are presented in the alphabetic order of the title.

Title:

Attitudes Assessment Instrument - Staff Development Questionnaire for Career Education

Date:

1974

Availability:

The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Purpose/Content:

To measure variations among staff members in terms of their affective acceptance, commitment and change orientation to career education.

Intended Survey Population:

Educators

Type of Users:

Local School Districts

Comments:

The instrument consists of forty items and can be administered in approximately twenty minutes.

Title:

Attitudes, Practices and Training Needs of Minnesota Educators in Career Education

Date:

1975

Availability:

Dr. Phyllis Mattsson Paul
State Department of Education
657 Capitol Square Building
550 Cedar
St. Paul, Minnesota 55101

Purpose/Content:

To discover the attitudes, practices and training needs of educators involved in career education.

Intended Survey Population:

School administrators, elementary teachers, vocational education/ practical arts teachers, secondary general education teachers and counselors

Type of Users:

Local School Districts, Kindergarten through Twelfth Grades

Comments:

Title:

Career Education Handbook for Implementation: Goal Setting

Date:

Not Listed

Availability:

Career Development
Michigan Department of Education
Lansing, Michigan 48904

Purpose/Content:

To serve as a model from which goal setting activities can be planned. It includes sample instruments for important individuals traits, the role of the school, and program analysis.

Intended Survey Population:

Students, parents, employers, community and labor organizations, and residents of the community in general.

Type of Users:

Local School Districts

Comments:

This handbook enables local school district to select the goal setting methods that is most suitable to their own situation. It appears to be flexible in its adaptability to differing situations.

Title:

Career Education Needs Assessment

Date:

1975

Availability:

Olympus Publishing Company
Salt Lake City, Utah

Purpose/Content:

To provide a vehicle for determining the level of understanding among each of the population groups, for learning where the career education emphasis should be placed for each group, and for outlining which steps must be taken in order to integrate a career education program into the classroom.

Intended Survey Population:

Teachers, Administrators and Students

Type of Users:

Local School Districts

Comments:

The materials include:

- Introduction and Interpretation Guide

- Four Tests

  1. Teachers and Administrators
  2. Students - Grades K-3
  3. Students - Grades 4-6
  4. Students - Grades 7-12

Title:

Career Education Needs Assessment
(SOS III)

Date:

1975

Availability:

The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Purpose/Content:

To present to the local administrators an opportunity to seriously examine career education and its implication for needs assessment.

Intended Survey Population:

School Administrators

Type of Users:

Local School Districts

Comments:

This is one of a series of staff development guides for local administrators. Other modules in this series include: (1) A Review of Foundations, (2) Change strategies and Techniques, (3) Identification of Resources, (4) Program Development Components of Career Education, (5) Evaluating Program Components, (6) Financial and Resource Program Planning, and (7) Developing an Implementation Plan.

Title:

Career Education Survey

Date:

1976

Availability:

Senior Consultant, Career Education
State Department of Education
State Office Building
201 E. Colfax
Denver, Colorado 80203

Purpose/Content:

To provide information on the status of Career Education and help determine future efforts in Career Education, including requests for state support for instructional programs.

Intended Survey Population:

Administrators, teachers, students (grades 6, 9 and 11), and members of the community

Type of Users:

Local School Districts

Comments:

Title:

Educational Information Survey

Date:

1972-73

Availability:

Coordinator, Career Education
Vocational Research and Evaluation
J & B Building
226 West Jefferson Street
Tallahassee, Florida 32304

Purpose/Content:

To determine the perceptions and perceived importance of career education.

Intended Survey Population:

Administrators, Principals, and Teachers

Type of Users:

Local School Districts

Comments:

Can be completed in approximately 15 minutes.

Title:

Needs Assessment Model for Guidance in North Dakota

Date:

1973

Availability:

Guidance and Counseling Section
Department of Public Instruction
Bismark, North Dakota 58501

Purpose/Content:

To begin work toward the establishment of goals, activities, objectives and evaluation in a complete system of accountability for guidance. The system is developed around the following areas: (1) educational, (2) vocational, (3) personal, (4) social and (5) career development.

Intended Survey Population:

Students, Administrators, Teachers, Parents and Counselors

Type of Users:

Local School Districts

Comments:

Needs for guidance are established using the following three steps:

1. Survey of the current activities of counselors
2. Surveys of the population served
3. Study of needs in other programs

Title:

New Hampshire High School Career Education Model: Program Assessment System

Date:

1976

Availability:

Career Studies
Keene State College
Keene, New Hampshire 03431

Purpose/Content:

To assess what aspects of career education are already developed, or need development and which of these have the highest priority in a school. Addresses Decision Making, Self Evaluation, Educational Vocational Information Work Habits, Job Hunting Skills, Entry Level Skills, and Placement

Intended Survey Population:

A representative group of seven to ten people of the school staff.

Type of Users:

Local Secondary Schools

Comments:

This program assessment model is conducted in no more than three one to two hours meetings.

Title:

New Mexico State Department of Education Objective-Based Evaluation Program

Date:

1975

Availability:

New Mexico State Department of Education
Evaluation Unit - Instructional Division
300 Don Gasper
Santa Fe, New Mexico 87503

Purpose/Content:

To analyze and assess school programs relative to student attainment of ten broad career education objectives and related enabling objectives.

Intended Survey Population:

Teachers, students, parents, community representatives, curriculum directors, and school administrators

Type of Users:

Local School District

Comments:

A committee of 30 representative people is appointed by the local superintendent or his designee. This committee than rates the objectives as above average in importance, average importance, or below average in importance.

Title:

Wisconsin Needs Assessment Instruments

Date:

1976

Availability:

Career Education Consultant
Department of Public Instruction
126 Langdon Street
Madison, Wisconsin 53702

Purpose/Content:

To assess needs for various career education needs of pre-kindergarten through retirement populations.

To determine the types and amounts of resources available from various state agencies, institutions, and organizations.

To assess what various state agencies, institutions, and organizations need to enable them to make their maximum contribution to career education.

Intended Survey Population:

Pre-K Personnel, 3rd Grade, 6th Grade, 9th Grade, 12th Grade, LEA Survey of Resources, CESA Survey of Resources, Colleges & Universities Survey of Resources, VTAE Survey of Resources, Retired Persons, Parents, Adults, Teachers, Counselors, Administrators, Special Education Teachers, EMR Secondary Special Education Students, State Government and Agencies, State Educational Associations, Occupational Groups (Other than Educators), and Other Support Groups

Type of Users:

State Education Agencies

Comments:

This is a comprehensive set of instruments for assessing the career education needs of diverse populations.

WHAT NEEDS ASSESSMENT QUESTIONS REMAIN UNANSWERED?

Needs assessment is still in its early stages of development. A number of people still have questions related to its effectiveness and merits of use. This section lists some of these concerns and issues as follows:

1. Should statewide needs assessment efforts be conducted?
2. What is the amount of relative effort that state career education directors/coordinators should spend on needs assessment?
3. How often should needs assessment efforts be conducted?
4. How can the various needs assessment efforts be more carefully articulated?
5. How can we know the desired or "should be" condition?
6. At which grade levels are needs assessment data most effectively and efficiently collected?
7. What should be the relationship between "needs assessment" and "evaluation"?
8. How can needs assessment data be incorporated into career education activities more effectively?

Undoubtedly, there are other questions similar to these that need addressing. Even though these questions persist, needs assessment seems to provide a great deal of promise and potential in designing activities that more effectively meet the needs of persons involved in and with career education.

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